

The Question Morpheme q in Hausa

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0. Introduction

According to the standard description, as presented for example in "Teach Yourself Hausa" (Kraft & Kirk-Greene 1973: 16-17), Yes/No questions in Hausa are indicated by a special "interrogative intonation", characterized by overall higher pitch plus an extra high pitch on the last Hi tone syllable of the sentence. Any Lo tone following the extra Hi tone is realized just one step below the Hi tone; if the extra Hi is the final syllable of the sentence, it "slurs" to a level at least one step lower. By contrast, normal declarative intonation is characterized by descending pitch (downdrift) such that a Lo after a Hi goes down two steps whereas a Hi after a Lo only rises one step. Ignoring details, the difference between corresponding sentences with declarative and interrogative intonation can be represented schematically as follows:

- | | | | |
|--------|--------------------------------|-----------------|-----------|
| (1) a. | <i>Míusáa yáa sàyi móotàa.</i> | [- - - - -] | Statement |
| | Musa bought a car. | | |
| b. | <i>Míusáa yáa sàyi móotàa?</i> | [- - - - -] | Question |
| | Did Musa buy a car? | | |
| (2) a. | <i>Míusáa yáa sàyi rìigáa.</i> | [- - - - -] | Statement |
| | Musa bought a gown. | | |
| b. | <i>Míusáa yáa sàyi rìigáa?</i> | [- - - - - \] | Question |
| | Did Musa buy a gown? | | |

Question-word questions, on the other hand, essentially use declarative intonation (or something akin thereto), although final Hi tone syllables also exhibit the falling "slur", e.g.

- | | | | |
|--------|-------------------------------|-----------------|-----------|
| (3) a. | <i>jíyà sùkè dà dóoyàa.</i> | [- - - - -] | Statement |
| | Yesterday they had yams. | | |
| b. | <i>sú wàa sùkè dà dóoyàa?</i> | [- - - - -] | Question |
| | Who (pl) has yams? | | |
| (4) a. | <i>jíyà sùkèè bárcíi.</i> | [- - - - -] | Statement |
| | Yesterday they were sleeping. | | |
| b. | <i>sú wàa sùkèè bárcíi?</i> | [- - - - - \] | Question |
| | Who (pl) is sleeping? | | |

Apart from Abraham (1959)¹, whose transcription is in many respects subphonemic, Hausaists have generally treated declarative and interrogative sentence pairs, such as the above, as being identical at the tonological level. The differences between them are ascribed to their different intonation contours. As Schuh (1978a: 244) says, "By intonational effects on tone, I mean modifications in pitch which cannot be attributed directly to immediate tonal or segmental environments or to some special morphological marking." Referring specifically to Hausa, he continues, "The effect of question intonation is to suspend downdrift, or reduce it considerably, and to raise the last high tone of the phrase to an extra high pitch with a sharp fall" (p. 245)².

It appears, however, that there is morphological marking of questions in Hausa, which has not been previously recognized, and that therefore part of the pitch assignment in questions has to be ascribed to the tonemic/phonological level rather than the intonational level. This "special marker" is a Lo tone question morpheme *q* which occurs at the end of Yes/No questions and Q-word questions, regardless of the type of intonation employed. The morpheme has two allomorphs: /:/ (Lo tone carried by a phoneme of length), and /ɔ/ (a floating Lo tone). The choice of the allomorphs and the surface realizations depend on the phonological shape of the immediately preceding word. In the interrogative sentences (2b) and (4b) above, for example, the words with lexical final Hi tone become phonologically Falling (Hi-Lo) when the *q* morpheme is added, i.e.

(2b') ...*rīgáà* (< *rīgáa* + ɔ); (4b') ...*bárcî* (< *bárcîi* + ɔ)

The purpose of this paper is to document the existence of this *q* morpheme in Hausa. First we describe its phonological manifestations, then discuss its relation to interrogative intonation, and finally explain its etymology.

1. The question morpheme *q*

1.1. Low Tone

When added to a word ending in a heavy syllable (CVV or CVC), the *q* morpheme consists of a floating Lo tone /ɔ/. By a general rule of tone grounding in Hausa, the floating tone becomes attached to the second mora of the preceding syllable³. If the preceding syllable ends in a Lo tone (i.e. is Lo or Hi-Lo (= Falling)), the grounding of

the floating tone has no tonal consequences, cf. (1b) and (3b)⁴. If the preceding syllable has Hi tone, the result is Hi-Lo, which is realized phonetically as a fall.

(5) *táa 'íyà ráwáa* ò ? → *táa 'íyà ráwáà* ? Can she dance?

(6) *dón mèè kùkà dáawóo* ò ? → *dón mèè kùkà dáawóò* ? Why did you (pl.) return?

cf. (6') *mín dáawóo* ? We returned⁵.

(7) *kúdii sún wádaatár* ò ? → *kúdii sún wádaatár̃* ? Were the funds adequate?

(8) *'àkwái 'isàssún kùjèeríu* ò ? → . . . *kùjèeríu* ? Are there enough chairs?

(9) *náwà née wánnàn bàrgóo* ò ? → . . . *bàrgóò* ? How much is this blanket?

(10) *káa gán shì 'à kás* ò ? → . . . *'à kás* ? Did you see it on the ground?

Although it is not normally treated as such, this Hi-Lo fall is the same as a normal lexically or grammatically generated Falling tone⁶. The attachment of *q* thus results in neutralization of the contrast between final Hi and final Hi-Lo, in some cases resulting in surface ambiguity, e.g.

(11) a. *kánàa dà kwái* ò ? → . . . *kwái* ? Do you have eggs?

b. *kánàa dà mái* ò ? → . . . *mái* ? Do you have oil?

(12) a. *záa sù sháa* ò ? → . . . *sháa* ? Will they drink?

b. *súnàa sháa* ò ? → . . . *sháa* ? Are they drinking?

cf. (12a') *záa sù sháa* ? They will drink.

(12b') *súnàa sháa* ? They are drinking.

(13) *káa káshè sháahòn nán* ? <

a. *káa káshè sháahòn nán* ? Did you kill this (*nán*) hawk?

b. *káa káshè sháahòn nán* ? Did you kill the hawk in question (*nán*)?

1.2. Vowel Length

When added to words ending in a short vowel, the *q* morpheme consists of a Lo tone and a component of length (i.e. \wedge/\wedge), this in fact being the underlying form of the morpheme. Although neglected by most Hausaists – Hoffmann and Schachter (1969:80) being an exception – lengthening of short final vowels is an essential part of Hausa question formation⁷. As in the case of the Lo tone, the

lengthening phenomenon has to be ascribed to the *q* morpheme at the segmental/phonological level rather than being attributed to the intonational level. This *q*-induced lengthening is thus comparable to other grammatically conditioned lengthening processes in Hausa (verbal noun formation, pre-pronoun lengthening, etc.) which produce morphophonemic length alternations. Examples:

- (14) *sóojà yáa tsírá` : ?* → ... *tsíráá ?* Did the soldier escape?
 (15) *gòobé kòogín yáa kèetàrú` : ?* → ... *kèetàrúù ?* Will the river be crossable tomorrow?
 (16) *mèe súkà báà Kàndé` : ?* → ... *Kàndèè ?* What did they give Kande?
 (17) *wàné yáaròo yá sòoyè hùuláĩ nànn tàawá` : ?* → ... *tàawáá ?* Which boy hid this cap of mine?

In the same way that addition of the Lo tone results in tonal neutralization of underlying Hi and Hi-Lo, so the length component of *q* produces neutralization of the contrast between long and short final vowels, e.g.

- (18) a. *záa tà fitá` : ?* → *záa tà fitáá ?* Will she go out?
 b. *tánàa fitáa ò ?* → *tánàa fitáá ?* Is she going out?
 (19) a. *kín gáanèe shí` : ?* → *kín gáanèe shíù ?* Do you understand it?
 b. *kín tìnàa dà shíù ò ?* → *kín tìnàa dà shíù ?* Do you remember it? (a. *shí* = direct object pronoun; b. *shíù* = independent pronoun)
 (20) a. *ʔàkwái bíyú` : ?* → *ʔàkwái bíyúù ?* Are there two?
 b. *ʔàkwái dúbúu ò ?* → *ʔàkwái dúbúù ?* Are there a thousand?
 (21) *yánàa shàafée ?* <
 a. (*bángóo*) *yánàa shàafé` : ?* Is it (the wall) whitewashed?
 (< the adverb of state *shàafé*)
 b. (*Múusáa*) *yánàa shàafée ò ?* Is he (Musa) whitewashing?
 (< the verbal noun *shàafée*)
 (22) *sún tàimàkí bàakóò ?* <
 a. *sún tàimàkí Bàakó` : ?* Did they help Bako (proper name)?
 b. *sún tàimàkí bàakóo ò ?* Did they help the stranger?

It is important to note that the lengthening is not conditioned by the Hi-Lo tone but exists as an independent component of the *q* morpheme /:/ . Thus short final vowels with Lo tone also lengthen in questions⁸. Compare the following examples, in which final Lo tone syllables are all inherently short.

- (23) *kúḍín wánnàn náir̃àa shídàa* ? Does this cost six naira?
 cf. (23') *kúḍín wánnàn náir̃àa shídà dà sùlèe 'úkùu* ? Does this cost
 six naira and three shillings?
- (24) *yáa jí tsòorón dóokìn Shéehùu* ? Is he afraid of Shehu's horse?
 cf. (24') *bàì jí tsòorón dóokìn Shéehù báà* ? Isn't he afraid of
 Shehu's horse?
- (25) *yáa báa kà gwàdòò* ? Did he give you a blanket?⁹
- (26) *záa sù zóò dà mútànéñsùu* ? Will they come with their people?
- (27) *gídán wàà Múusáa yá kwáanáà, yáa gáyàa mākàa* ? Whose
 house did Musa spend the night at, did he tell you?
- (28) *'ínáa ká sàamí 'àkwàat̃i* ? Where did you get the box?
- (29) *náwà náwà nēe 'àyàbàa* ? How much (each) are the bananas?

1.3. Multiple q's

With the establishment of *q* as an independent formative, it is now possible to understand more complex interrogative sentences and interrogative patterns such as those described by Abraham (1959), but ignored by most other Hausa scholars. These patterns show that *q* is not restricted simply to sentence final position nor to just one occurrence per sentence, e.g.

- (30) *sáatàa cée ò sùkà yí ː ?* → *sáatàa cée sùkà yí ː ?*
 stealing it-is q they do q Was it stealing they did?
- (31) *bàbbá-ř-kì dà kée ò kìnàa làaláatàa ò ?* →
 elder-of-you with you q you-are immorality q
bàbbářkì dà kée kìnàa làaláatàa ? (is it creditable)
 that a woman of your antecedents should indulge in itinerant forni-
 cation? [Abr. (sic!)]
- (32) *sún táashì ː bà kà hánàa sù bá ː ?* →
 they left q neg you prevent them neg q
sún táashì bà kà hánàa sù báà ?
 Did they leave and you didn't prevent them?
- (33) *zài yí wàasáa dà ríwán wúkàa hánmúnsà yà sháa ràunì ː ?*
 Shall he play with the knife blade (such that) his hand get
 injured? (*wúkàa* < *wúkàa* + ò; *ràunì* < *ràunì* + ò)
- (34) *'à 'ínàà mácìj̃t̃i yá sàarée shì ː ?*
 Where did the snake bite him?

The *q* after the *Q*-word *'ínáa* 'where' is optional and probably adds some extra focus or emphasis; the *q* after *shì* is obligatory.

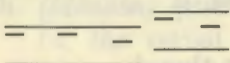
- (35) *káa fí sòn fàráà kóo bákáà ?* Do you prefer the white (one) or the black one?

Questions formed with *kóo* 'or' exhibit a number of different patterns, in addition to the one shown in (35); for details, see Abraham (1959:68, 156).

2. Interrogative Intonation

In the preceding section it was shown that the final sharp fall or "slur" usually analyzed as being at the intonational level is in fact the result of a final Hi tone syllable followed by the Lo tone *q* marker. We now discuss those properties of Hausa questions which we believe are attributable to the intonation contour in order to clarify how they interact with the *q* marker¹⁰.

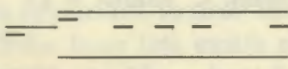
A prominent feature of Yes/No questions is the suspension or reduction of downdrift intonation, such that the question is on an overall higher pitch level than in the case of a corresponding declarative sentence. Moreover, the last Hi tone of the utterance is raised to an extra high pitch, which prompted Hodge and Umaru (1963:4) to go so far as to postulate a phonemic "question tone". In our view, this raised Hi pitch has nothing to do with a special tone, but rather results from an intonational process of "key raising", which we indicate by †. This key raising not only reduces the effect of downdrift but causes a major change in pitch levels, such that not only does the last Hi tone have significantly raised pitch but any following Lo tone(s) also remain at a relatively higher pitch level. The shift in pitch levels is analogous to a musical shift in key, and can be schematized as follows:

- (36) 

ʔán báa kà ʔái kù

ʔán báa kà † ʔáikù ò ?

Were you given work?

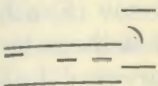
- (37) 

ʔán báa kà ʔà kwàà tì

ʔán † báa kà ʔàkwààtì : ?

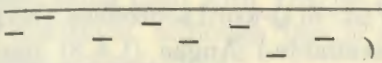
Were you given a box?

If the last Hi tone occurs on the lexical final syllable of the utterance, the raised Hi combines with the Lo of the q marker to produce an extra high fall, e.g.

(38) 
záa tà fĩ táà

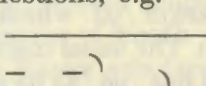
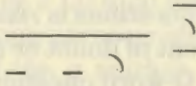
záa tà fĩtá ?
 Will she go out?

As shown in the above examples, the key raising is obligatory with Yes/No questions. The independence of key raising from the q marker can be seen in Q-word questions, which have more or less normal downdrift.

(39) 

ʔĩ náa Hà líi mà tá kèe bár cĩ ʔínáa Hàlíimà tákèe bárcíi ɔ ?
 Where is Halima sleeping?

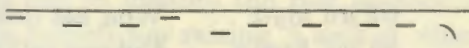
However, some speakers optionally use key raising even with Q-word questions, e.g.

(40) a.  = b. 

yàa yàa yáà ráà
yàayàa yáàráa ɔ ?

yàa yàa yáàràà
 How are the children?

In indirect questions, key raising is normally absent even though the q marker may be found, e.g.

(41) 

yáa tàmm bà yée nì kóo náa yí ʔáurée
yáa tàmbáyée nì kóo náa yí ʔáurée ɔ ?
 He asked me whether I was married.

3. Etymology

A purely synchronic analysis of Hausa shows clearly that the language has a discrete q morpheme, not to be confused with ques-

tion intonation. This morpheme occurs at the end of interrogative sentences, whether Yes/No or Q-word questions, and may (sometimes must) also occur phrase-finally at internal syntactic breaks. Although it is unusual in Hausa to have a morpheme of such segmentally reduced shape — simply /ə/ or /ɔ/ — that there be such an overt *q* morpheme should not be surprising. A survey of the literature on related languages shows that it is extremely common, if not the norm, for Chadic languages to have a *q* marker at the end of question sentences. In some languages, the *q* marker is limited to Y/N questions, while in others it is limited to Q-word questions. Other languages use a *q* marker with both types of questions, although seldom the same marker!

Within the West Chadic branch, to which Hausa (I.A.1) belongs¹¹, Galambu (I.A.2) has a *q* marker /yà/ in Q-word sentences. (No information on Y/N questions is available.) Angas (I.A.3) has two markers: /à/ with Y/N questions, and /ē/ (< *yā) with Q-word questions. Similarly, Ron (I.A.4) has two markers: /à/ (~ /hà/) with Y/N questions, and /yà/ with Q-word questions, the latter apparently optional. In the less closely related Biu-Mandara branch, Tera (II.A.1) has a number of different *q* markers. The neutral marker for Y/N questions is /mú/, but there is also a marker /yà/ which adds an element of doubt or request for confirmation. The usual marker used with Q-word questions is /ā/. Margi (II.A.2) has /yà/ as its normal *q* marker in Y/N questions. It also has a marker /rá/, which is the normal *q* marker for Q-word questions, but which may also be used with Y/N questions to indicate scepticism. Examples are as follows:

- | | | |
|---|---|---|
| (42) Galambu
(Schuh 1978b:77) | <i>mál gá tàagà yà</i>
<i>á mánjì yà</i> | Who ran?
What is it? |
| (43) Angas
(Burquest 1977:39) | <i>á né yán-à</i>
<i>wè dō tòŋ-ē</i> | Did you see me?
Who sat down? |
| (44) Ron (Bokkos)
(Jungraithmayr
1970:134, 141) | <i>hú wó ham-à</i>

<i>há mas ró-hà</i>

<i>fòt tálè(-yà)</i> | Did you (pl) drink
water?
Did you (m) do
work?
Where has it been
lost? |
| (45) Tera
(P. Newman 1970) | <i>tá ná ndā mī</i>
<i>tá ná ndā yà</i> | Did you see it?
Did you (really)
see it? |

(46) Margi

(Hoffmann 1963:98)

á n̄ĩ nám-ā

What is he eating?

ā f̄án Ālī-ā

Where is Ali?

ūlár ḡà Mádà yà

Did you see Mada?

àtá s̄à ḡá rá

Can you (really) cook?

ūmwár Dáudà rá

Where is Dauda?

Viewed comparatively, it seems clear that the present-day Hausa q morpheme $\wedge:/(\sim/\delta/)$ is the reflex of a fuller form $*\dot{a}$, which probably existed until quite recently. Most likely, this question morpheme $*\dot{a}$ represents the merger of two originally distinct markers, $*\dot{a}$ and $*y\dot{a}$, one being used with Yes/No questions and the other with Q-word questions, although this is a matter for fuller comparative historical investigation¹².

4. Summary and Conclusions

Hausa has a Lo tone question morpheme used at the end of Yes/No as well as Q-word questions. Because of its reduced segmental shape — it consists simply of a floating Lo tone or a Lo tone carried by a phoneme of length — this morpheme has gone unrecognized by previous Hausa scholars. The identification of the q marker as a separate morphological/phonological entity distinct from question intonation allows one to explain changes in phonemic tone (from Hi to Falling) and in phonemic vowel length (from short to long) that characterize word final syllables in interrogative sentences. Its identification as a separate morpheme also allows one to explain the presence of these phonological changes in the absence of question intonation. Finally, extracting the q marker from the intonation allows one to identify the real essence of question intonation in Hausa, namely key raising. A look at other Chadic languages shows the existence of overt q markers to be typical of the family; once recognized synchronically, the Hausa q marker $\wedge:/(\sim/\delta/)$ is easily relatable historically to a widespread Chadic q marker $*\dot{a}$.

Notes

1. Abraham (1959:65–68, 153–57) is still the best published source on Hausa question formation. Many of the examples in this

paper are either taken from or modelled on examples in Abraham. Useful information is also to be found in Meyers (1976, esp. pp. 120-27). The excellent tapes accompanying Hodge and Umaru (1963) constitute a rich source of basic data on question sentences.

2. According to Višnevskaja (1968), the fall on the final syllable rather than the total sentence contour perceptually constitutes the essence of Hausa question intonation. This was shown by an experiment in which the final syllables of declarative and interrogative sentences were interchanged and native speakers were asked to judge which sentences were questions and which were statements. The identification was invariably made on the basis of the final syllable.

3. The tone grounding rule is best illustrated by the progressive participle ("verbal-noun") suffix /ɗwáa/, e.g. *súnda kóomóo* + *ɗwáa* → *súnda kóomóòwáa* 'they are returning'.

4. In the case of a floating tone preceded by an identical tone, it is immaterial whether one allows the tone to ground vacuously or whether one gets rid of the floating tone by an earlier tone pruning rule.

5. The pre-pausal glottal closure found with (Hi)Hi verbs (and other Hi tone long final vowels) is discussed in R. M. Newman and van Heuven (1981). The phenomenon does not occur in questions.

6. Abraham (1959) and Hoffmann and Schachter (1969) describe questions as involving a change from a Hi tone to a Falling tone. Kraft and Kirk-Greene (1973) and Cowan and Schuh (1976), on the other hand, do not seem to equate the intonational fall with Falling tone: the former speak of a "falling slur" (p. 17) while the latter describe a high tone which "drops off like a falling tone" (p.17, emphasis ours). Hodge and Umaru (1963) postulate an extra high "question tone", with or without a fall depending on the context.

7. Final vowel length in general has been a neglected area of Hausa scholarship. None of the major Hausa dictionaries is reliable on this point, for which one has to refer to the recent (but much smaller) practical dictionary of Newman and Newman (1977).

8. This statement constitutes a correction to the assertion in R. M. Newman (1976:187n) that lengthening does not apply to short final vowels with Lo tone. While speakers can block the lengthening to preserve an underlying length contrast, the normal situation in questions is for short final vowels to lengthen and be pronounced without final glottal closure regardless of the tone.

9. As pointed out by Leben (1971:202 ff.), there is a general restriction in Hausa against words ending in Lo-Lo if the final vowel is long. The corollary of this phonotactic restriction is a tone raising rule whereby final $L\ L_{[+ \text{long}]} \rightarrow L\ H_{[+ \text{long}]}$ (the length having come from derivational or inflectional addition). As seen in examples 25, 28, and 29, the raising rule does not apply to the long Lo tone vowels formed by the addition of q marker, since (as can be shown elsewhere) the raising rule, which operates within a word, must be applied before the attachment of q.

10. The present analysis of questions deals only with the patterns described in the standard works on Hausa. It should be pointed out, however, that other patterns not previously described do exist (apparently dialectal variants), and that a fuller study of question formation should take these into account.

11. The Chadic classification and referential system adopted here is that presented in P. Newman (1977).

12. There are striking parallels here to what one finds in Kwa languages. In Ewe (Westermann 1930:164-65), for example, Yes/No questions take a particle /à/ at the end while Q-word questions add a Lo tone to the last syllable of the sentence.

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